Definitions of disasters

In July 2008, CRED (Centre for Research on the Epidemiology of Disasters) and MünichRe released a common "Disaster Category Classification for Operational Databases". This new common classification represents a first step in the development of a standardized international classification of disasters.

It distinguishes two generic categories for disasters (natural and technological), the natural disaster category being divided into six sub-groups: Biological, Geophysical, Climatological, Hydrological, Meteorological and Extra-Terrestrial disasters. Each sub-group in turn covers 12 disaster types and more than 32 sub-types. Because some disasters the International Federation is responding to are not in this classification, a "Human related" category has been added. The hierarchy of the new classification was constructed based on a "triggering hazard" logic. Indeed the triggering hazard is used as the reference root to classify the disaster. For example, a mass movement can be triggered by either a geophysical or a hydrological phenomenon. The triggering hazard will then determine if the disaster is assigned to in mass movement dry or wet category.

This document presents and defines this classification. It is in the interest of the Federation to adopt it.

For any question, please contact frederic.zanetta@ifrc.org

Geophysical sub-group: Events originating from solid earth



Earthquake

Tremblement de terre

Terremoto

Shaking and displacement of ground due to seismic waves. This is the earthquake itself not the secondary effects!



Tsunami

Waves advancing inland



Volcano

Volcan

Volcán

All volcanic activity like rock fall, ash fall, lava streams, gases etc



Rockfall

Chute de pierres

Desprendimiento de rocas

Quantities of rock or stone falling freely from a cliff face



Land slide

Glissement de terrain

Deslizamiento de tierra

Any kind of moderate to rapid soil movement incl. lahar, mudslide, debris flow



Avalanche

Avalanche

Avalanchas

Any kind of rapid snow/ice movement



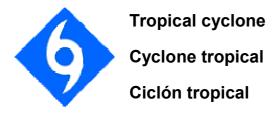
Subsidence

Affaissement

Subsidencia

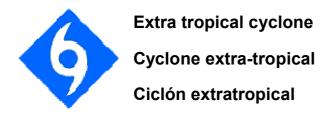
Downward motion of the Earth's surface relative to a datum (e.g. the sea level)

Hydrometeorologic - Meteorological sub-group : Events caused by shortlived/ small to mesoscale atmospheric processes (in the spectrum from minutes to days)



A tropical cyclone (also known as a hurricane or typhoon) is a storm system with a closed circulation around a centre of very low pressure and fuelled by the heat released when moist air rises and condenses. Tropical Cyclones originate over tropical or subtropical waters, with organized deep convection and a closed surface wind circulation about a well-defined centre (the eye). Once formed, a tropical cyclone is maintained by the extraction of heat energy from the ocean at high temperature and heat export at the low temperatures of the upper troposphere. Tropical cyclones are characterised by very high winds (>119km/h), tornadoes, torrential rain (leading to mudslides and flash floods) and storm surges.

Classification: Tropical depression (<34 knots/63 km/h), Tropical storm (34-63 knots/63-119 km/h) hurricane/typhoon (64 knots/119 km/h -...) Super-typhoon (>130 knots/245 km/h)



Extratropical cyclones (also known as depressions or lows) are defined as large scale low pressure weather systems that occur in the middle latitudes (normally between 30°- 60° N and S) of the earth, having neither tropical nor polar characteristics. They are connected with fronts and horizontal gradients in temperature and dew point otherwise known as "baroclinic zones".

Extratropical cyclones can bring mild weather with a little rain and surface winds of 15-30 km/h (10- 20 mph), or they can be cold and dangerous with torrential rain and winds exceeding 119 km/h (74 mph). Tropical Cyclones sometimes become extra-tropical, and while most quickly dissipate or are absorbed by another weather system, some can still retain winds of hurricane or gale force



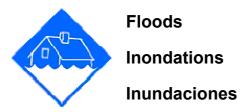
Local storm

Tempête

Tormenta local

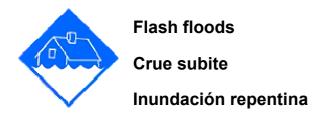
Any disturbed state of a planet's atmosphere, especially affecting its surface, and resulting in severe weather. It may be marked by strong winds (a wind storm), thunder and lightning (a thunderstorm), heavy precipitation, ice (ice storm), or wind transporting some material through the atmosphere (e.g. dust storm, snowstorm or hailstorm)

Hydrometeorologic - Hydrological sub-group : Events caused by deviations in the normal water cycle and/or overflow of bodies of water caused by wind set-up



Gradually rising inland floods (rivers, lakes, groundwater) due to high total depth of rainfall or snowmelt (EM-DAT definition).

The inundation of a normally dry area caused by high flow, or overflow of water in an established watercourse, such as a river, stream, or drainage ditch; or ponding of water at or near the point where the rain fell. This is a duration type event with a slower onset than flash flooding, normally greater than 6 hours



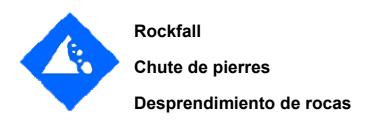
Rapid inland floods due to intense rainfall (EM-DAT definition).

A rapid and extreme flow of high water into a normally dry area, or a rapid water level rise in a stream or creek above a predetermined flood level, beginning within six hours of the causative event (e.g., intense rainfall, dam failure, ice jam). However, the actual time threshold may vary in different parts of the country. Ongoing flooding can intensify to flash flooding in cases where intense rainfall results in a rapid surge of rising flood waters



Coastal flood on coasts and lake shores induced by wind (EM-DAT definition).

Water that is pushed toward the shore by the force of the winds swirling around the storm. This advancing surge combines with the normal tides to create the hurricane storm tide, which can increase the mean water level 15 feet (4,5 m) or more. In addition, wind driven waves are superimposed on the storm tide. This rise in water level can cause severe flooding in coastal areas, particularly when the storm tide coincides with the normal high tides



Quantities of rock or stone falling freely from a cliff face



Any kind of moderate to rapid soil movement incl. lahar, mudslide, debris flow



Any kind of rapid snow/ice movement



Downward motion of the Earth's surface relative to a datum (e.g. the sea level)

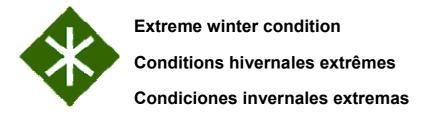
Hydrometeorologic - Climatological sub-group : Events caused by longlived/ meso to macroscale processes (in the spectrum from intraseasonal to multidecadal climate variability)



A long lasting period with extremely high surface temperature



Marked cooling of the air, or the invasion of very cold air, over a large area



Damage caused by snow and ice



Long lasting event; triggered by lack of precipitation. Period of deficiency of moisture in the soil such that there is inadequate water required for plants, animals and human beings



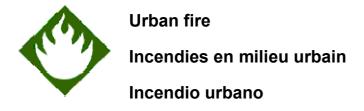
Fires in forest that cause extensive damage



Fires in bush that cause extensive damage



Fires in grassland that cause extensive damage



Fires in urban area that cause extensive damage

Biological sub-group : Disaster caused by the exposure of living organisms, to germs and toxic substances



Epidemic

Epidémie

Epidemia

Sub-types: Viral Infectious Diseases, Bacterial Infectious Diseases, Parasitic Infectious Diseases, Fungal Infectious Diseases, Prion Infectious Diseases

- 1.- An unusual increase in the number of cases of an infectious disease which already exists in the region or population concerned.
- 2.- The appearance of a significant number of cases of an infectious disease introduced in a region or population that is usually free from that disease



Grasshoppers

Sauterelles

Saltamontes

Pervasive influx and development of grasshoppers affecting humans, animals, crops and materials



Locust

Criquets

Langostos

Pervasive influx and development of locust affecting humans, animals, crops and materials



Animal attack

Attaque d'animal

Ataque de animales

Attack from an animal



Meteorite

Météorite

Meteoritos

Events arising from the impact of solid bodies or the influence of radiation from space (EM-DAT).

Technological - Industrial accident sub-group



Chemical spill

Pollution chimique

Contaminacion quimica

Accidental release occurring during the production, transportation or handling of a hazardous chemical substances.



Collapse

Effondrement

Derrumbamientos

Break down of industrial building or construction



Explosion

A violent release of energy caused by a chemical or nuclear reaction



Gas leak

Fuite de gaz

Fuga de gas

A leak of gas from a pipe of other containment



Poisoning

Empoisonnement

Envenenamiento

A condition or physical state produced by the ingestion, injection or inhalation of, or exposure to a deleterious agent.



Radiation

Radiation

Radiacion

Nuclear radiation



Other

Autre

Otro

All other disasters

Technological - Miscellaneous accident sub-group



Break down of building or infrastructure (dam, ...)



A violent release of energy caused by a chemical or nuclear reaction, a bomb



Fire

Incendie

Incendio

The process of combustion of inflammable materials producing heat and light and (often) smoke



All other disasters

Technological – Transport accident sub-group



Air

Accident aérien

Catástrofe aérea

Accident involving flying vehicles



Rail

Accident ferroviaire

Catástrofe ferrovraria

Accident involving trains



Road

Accident outier

Accidente vial

Accident involving cars, trucks, buses, ... on a road



Water

Accident maritime

Catástrofe marítima

Accident involving boats

Human related



Civil unrest

Troubles

Disturbios

Typically a symptom of, and a form of protest against, major socio-political problems. Typically, the severity of the action coincides with public outrage. Examples of civil disorder include, but are not necessarily limited to: illegal parades; sit-ins and other forms of obstructions; riots; sabotage; and other forms of protest. It is intended to be a demonstration to the public and the government, but can escalate into general chaos.



Complex emergency

Urgences complexes

Emergencia compleja

A humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/ or the ongoing United Nations country program (IASC) Such "complex emergencies" are typically characterized by:

- extensive violence and loss of life; massive displacements of people often cross border (refugees); widespread damage to societies and economies;
- the need for large-scale, multi-faceted humanitarian assistance;
- the hindrance or prevention of humanitarian assistance by political and military constraints;
- significant security risks for humanitarian relief workers in some areas.
- 1.- An unusual increase in the number of cases of an infectious disease which already exists in the region or population concerned.
- 2.- The appearance of a significant number of cases of an infectious disease introduced in a region or population that is usually free from that disease.



Famine

Famine

Hambruna

A catastrophic food shortage affecting large numbers of people due to climatic, environmental and socio-economic reasons.



Population movement

Mouvements de population

Movimientos de poblacion

Refugees, internally displaced peoples (IDPs) and migrants.